

Work Order ID 108002***108002***

Page 1

October-07-13 9:06:12 AM

Item ID: 646.3110

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Channel

Start Date: 10/07/13 Start Qty: 5.00

5

Cust Item ID:

Required Date: 10/07/13 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan: M UJDate: 13-10-08

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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646.3100	N/C	0.00							
100	BAND SAW	0.00							
100	Memo	0.00							
Bandsaw	Cut Blank at 15.00"								
Jeaspa Bandsaw									

110	HAAS CNC VERTICAL MACHINING #1	0.00							
110	Memo	0.00							
HAAS 1	1-Machine per folio FB145								
HAAS CNC vertical machine #1	DWG REV: <u>N/C</u>								
	FOLIO REV: <u>AA</u>								

2- deburr and break all sharp edges

2

SL13-10-22

2

SL13-10-22

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

QA Closed: _____ Date: _____

Work Order ID 108002***108002***

Page 2

October-07-13 9:06:13 AM

Item ID: 646.3110

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Channel

Stop ***NS2***

Start Date: 10/07/13 Start Qty: 5.00

5

Cust Item ID:

Required Date: 10/07/13 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB QC8- Inspect parts - second check	0.00 0.00							SL13-10-22
130 *130* QC Quality Control	Memo	0.00							DAS 08 2013
140 *140* Outsource4 Outsource process - Anodize	Outsource process-Anodize per QSI017 4.1.10.1 Issue P/O to ATG : <u>P021915</u> 1- Black Anodize as per Dwg 646.3100 2- PRIME AS PER DWG, SEE NOTE #2 Certification of Conformity is required	0.00 0.00	D.A	13/10/25	2	0			PL13-11-01

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
				Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>			
				Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>			
				Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>			
				Crushed/Crimped. <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>			
				Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>				
				Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>				
				Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>			
				Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>					
				Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>					
				Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>					
				Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>					

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										
FAULT CATEGORY										
Landing Gear				General						
				Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced Temperature/Cure		
Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>						
Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>						
Crushed/Crimped. <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>						
Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>							
Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>						
Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>									
Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>									
Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>									
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>									
Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>									

Work Order ID 108002

108002

Page 4

October-07-13 9:06:13 AM

Item ID: 646.3110

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Channel

Start Date: 10/07/13 Start Qty: 5.00 *5*

Cust Item ID:

Required Date: 10/07/13 Req'd Qty: 5.00 *5*

Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* QC Quality Control	QC21- Final Inspection - Work Order Release	0.00							13/11/21
	Memo	0.00							

10/11-24

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Picklist Print

October-07-13 9:06:12 AM

Page 1

Work Order ID: 108002**Parent Item:** 646.3110**Start Date:** 10/07/13**Required Date:** 10/07/13**Parent Item Name:** Channel**Start Qty:** 5.00**Required Qty:** 5.00**Comments:** IPP REV:A NEW ISSUE 12-10-24 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M17075T6B1.500X1.500 7075 T6 BAR 1.500 x 1.500		Purchased	No			f		4.5450		6.5789475		<i>SL 13-10-22</i>	

Location	Loc Qty	Loc Code
MAT049	4.545	
123610	0.302	
124030	0.525	
125363	0.54	
→ m126705	3.178	<i>2.51</i>

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence Wave/Twist in Tube				Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/>							
				Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/>							
				Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/>							
				Other <input type="checkbox"/>							

DART AEROSPACE LTD	Work Order:	108002
Description: Channel	Part Number:	646.3110
Inspection Dwg: 646.3100 Rev: N/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Measured by:	SL	Audited by:	B.A.	DAJ	Preliminary Approval:	
Date:	13-10-22	Date:	13/10/25	08 8-88	Date:	

Rev	Date	Change	Revised by	Approved
A	13.09.17	New Issue	KJ	

REV	DESCRIPTION	DATE
		2-2007-05

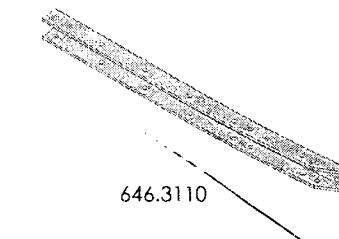
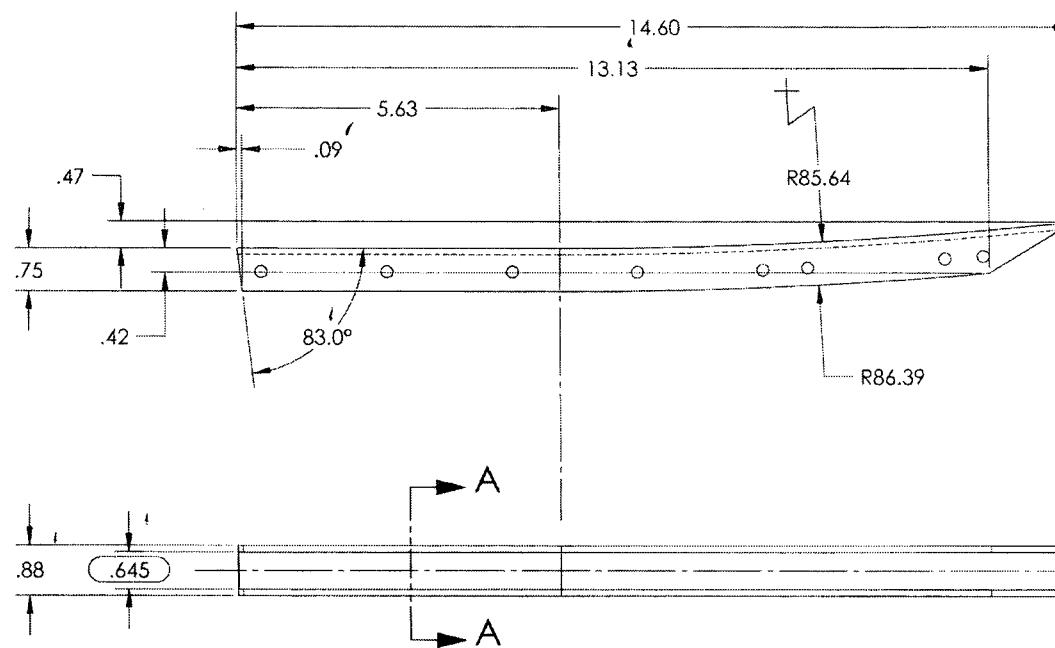
NOTES:

1. MATERIAL: ALUMINUM 7075-T651 AMS-QQ-A-225/9

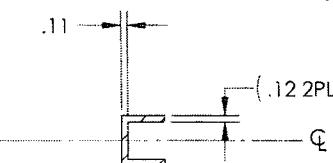
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2, COLOR BLACK;
CARDINAL 4860-50 PRETREATMENT PRIMER; PRIME IAW MIL-P-23377J TYPE I CLASS N

3. DEBURR AND BREAK ALL SHARP EDGES

4. IDENTIFY IAW MPP-120



108002 MLJ
13-10-08

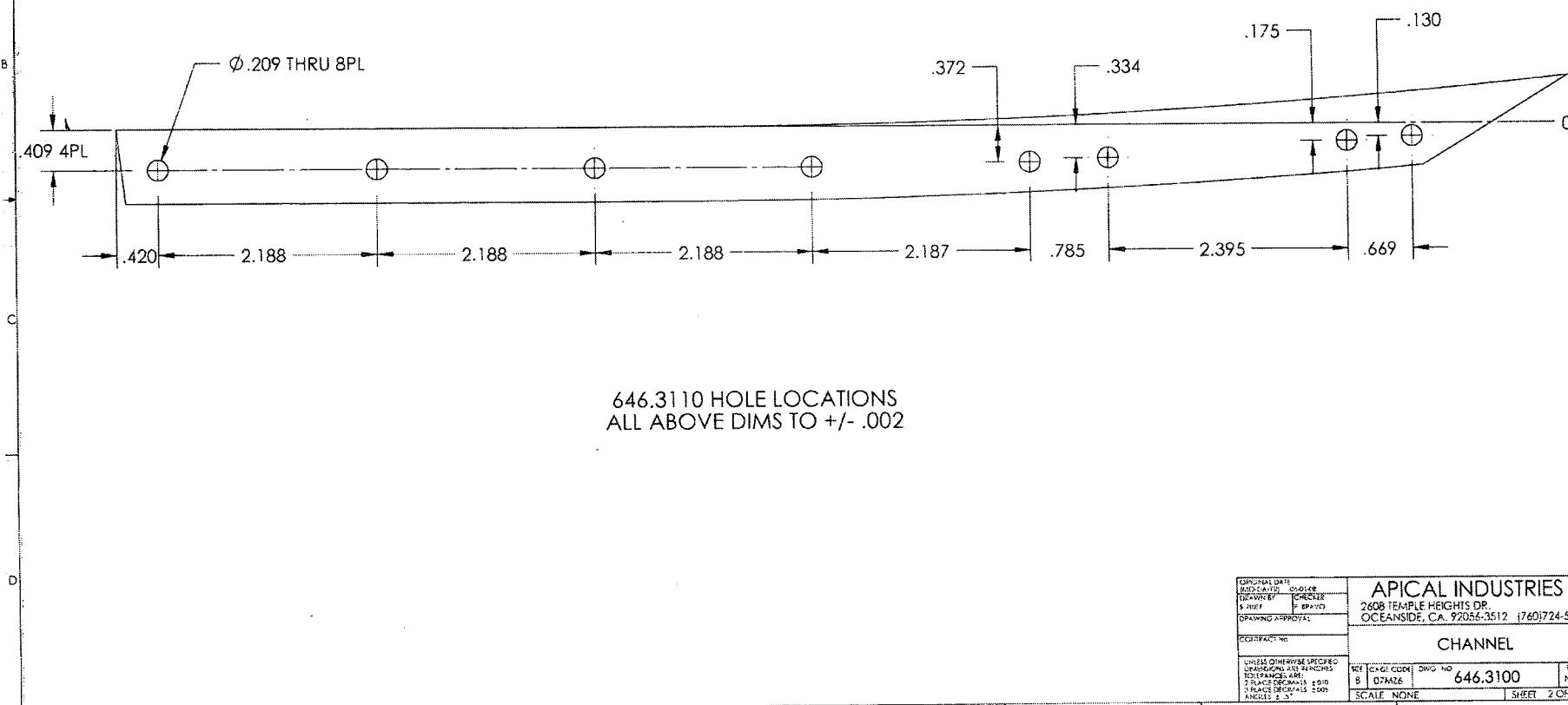


SECTION A-A

QTY	FIND #	PART #	CHANNEL	MATERIAL	SPEC.
			PARTS LIST		
1	646.3100	646.3110	APICAL INDUSTRIES		
			2608 TEMPLE HEIGHTS DR.		
			OCEANSIDE, CA 92054-3512 (740)724-5300		
			ES		
			CHANNEL		
			646.3100	N/C	
			SCALE NONE		
			1 SHEET		
			OF 2		

1 1 1 2 3 4 5 6 7 8 108002

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APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.



ORIGINAL DATE	APICAL INDUSTRIES					
10/23/01	DRAWING NUMBER					
10/23/01	SHEET NUMBER					
DRAWING APPROVAL						
CONTRACT NO.						
WHEEL CENTERLINE SPECIFIED WHEEL CENTERLINE RANCHERS TOLERANCES ARE: 1. TOTAL LENGTH = 19.00 2. PLACE DECR/IN 2.000 ANGLES $\pm .5^\circ$						
REF	CAST CODE	DRAW NO	REV			
R	D7M26	646.3100	N/C			
SCALE: NONE		SHEET 2 OF 2				

Jean-Luc Menard

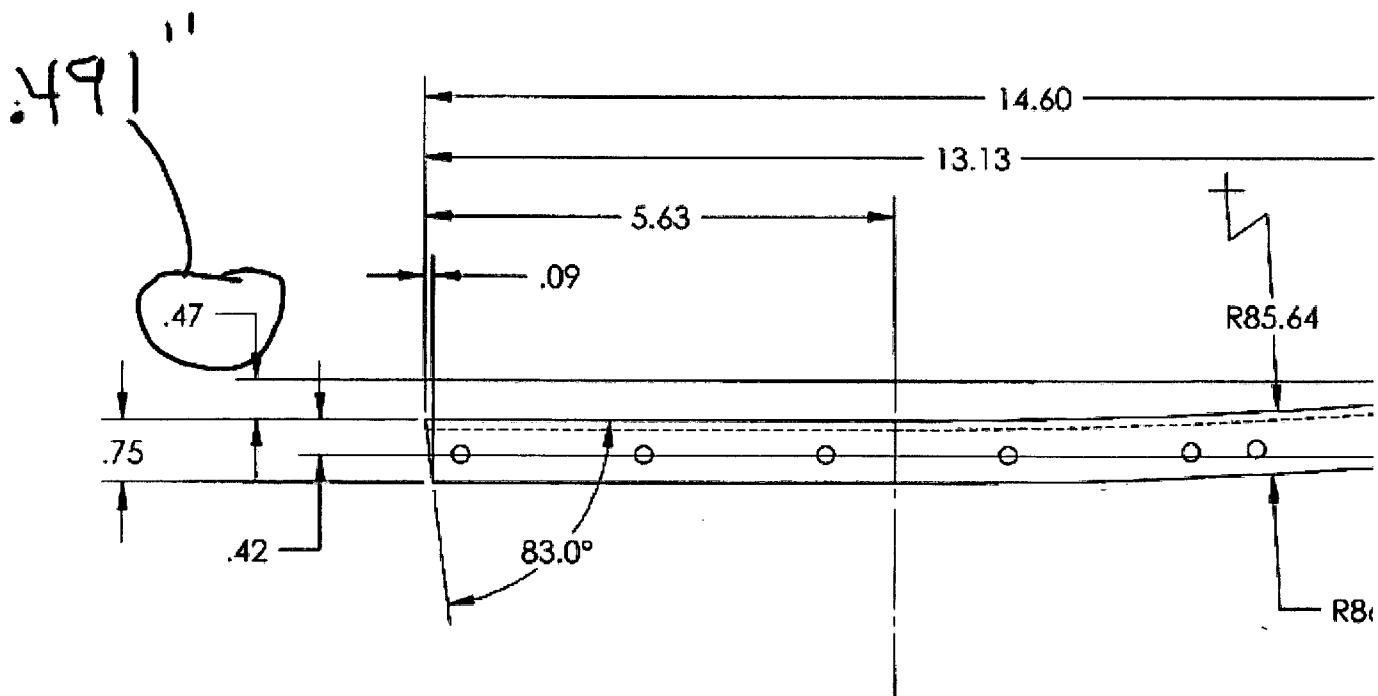
From: Pablo Bravo
Sent: October-25-13 1:50 PM
To: Jean-Luc Menard
Subject: RE: DEVIATION ??

JL,
That should be okay. I don't think the contour will be an issue for fitment.

Pablo

From: Jean-Luc Menard
Sent: Friday, October 25, 2013 7:52 AM
To: Pablo Bravo
Subject: DEVIATION ??

Hi Pablo,
Pls see below,part came in at .491,is it acceptable?
JL





A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada
Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 62753

Date: 22-Nov-13

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms	Ship Via
Quantity	Description
1 lot	Part: ASST 10 PCS 646.3312 (12.05) ✓ 12 PCS 646.3010 (10.25) ✓ 6 PCS 646.3310 (18.10) ✓ 2 PCS 645.3110 (10.65) ✓ 4 PCS 646.3810 (6.55) ✓ 32 PCS 646.3715 (6.70) ✓ 8+8 38 PCS 646.3718 (3.95) ✓ 6 PCS 646.9812 (22.80) ✓ HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PRICE IS PER PIECE Job: 20130724 PO: 21915 Line:
	Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE: <u>22/11/13</u> CERTIFIED SIGNATURE: <u>MA</u> RECEIVER SIGNATURE: _____

